



## PATIENT CASE EXAMPLE

# Total Shoulder Repair

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### OVERVIEW/DISCUSSION

AmnioFix® has been used in musculoskeletal conditions in locations where significant problems with healing and scarring are likely to occur and therefore reduce range of motion in the affected area. In the current case, a patient with chronic shoulder osteoarthritis (OA) underwent a total shoulder replacement procedure. AmnioFix was incorporated into the procedure to modulate inflammation and reduce scarring.

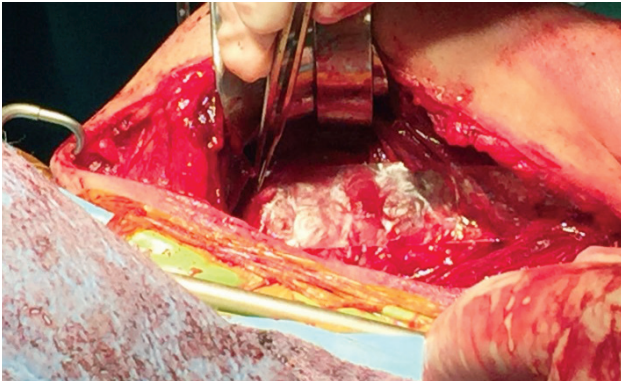
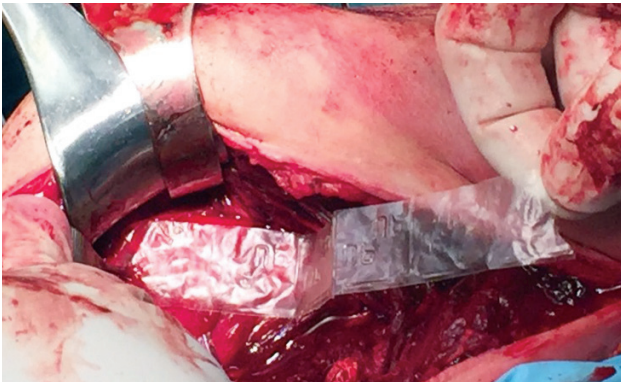
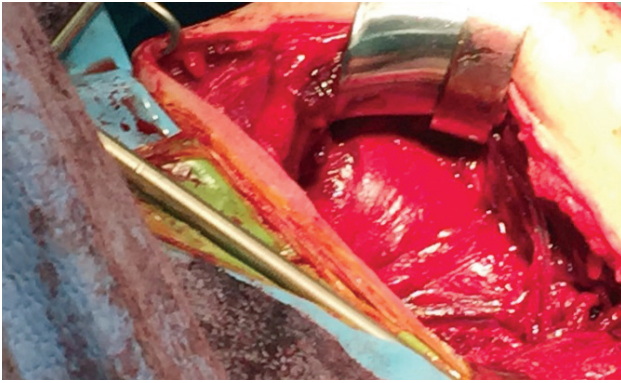
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### CLINICAL HISTORY

A 43-year-old male with a history of traumatic injury to the shoulder developed chronic OA of the glenohumeral joint due to the injury and multiple surgeries to correct it. He subsequently developed chronic pain and shoulder instability. His shoulder surgical history included six prior open or arthroscopic procedures. In addition to the severe OA noted, the patient had developed significant scarring and adhesions throughout the subcutaneous shoulder capsular tissues. His range of motion was significantly reduced. It was felt that another surgical procedure would be the most reasonable approach to improve the limited range of motion and reduce pain.

### TREATMENT

The patient was taken to the Operating Room, where a previously placed prosthesis was removed and replaced with a total shoulder system, with capsular releases performed. The surgery included a pectoralis transfer to reconstruct the attenuated subscapularis muscle tendon. AmnioFix was placed under the deltoid (anteriorly, posteriorly, and laterally) to help prevent the recurrence of arthrofibrosis. AmnioFix was placed within the tissue planes, the surgeon applying one 2 cm x 12 cm and two 2 cm x 3 cm grafts. Placement sites were on the superior aspect of the rotator cuff and at the proximal humerus, below the deltoid muscle.



## FOLLOW UP

On the first post-operative day the patient was substantially and somewhat unexpectedly pain free. His range of motion improved quickly and he was able to discontinue physical therapy after three weeks. He was seen as an outpatient on post-operative day 4 and noted to have a good range of motion and to be using his arm in a very normal, functional manner. Against medical advice he had quit using his shoulder sling and was moving his arm fully, without discomfort. When seen for his one year visit, the shoulder was stable and pain free. Shoulder range of motion was reduced somewhat, with 20 degree full flexion; internal rotation performed to the level of the 3rd lumbar; external rotation was 150 degrees at 0 degree abduction, 60 degrees at 90 degree abduction.

## CONCLUSION

This patient presented with chronic pain in an unstable shoulder, with significant OA, resulting from trauma and multiple surgical procedures. After significant revision including a total shoulder replacement and use of AmnioFix to improve healing and reduce scarring, a better than expected outcome was achieved. This was characterized by a much improved range of motion and joint stability, as well as an expedited return to function.